

Amendments to the Drawings

Corrected drawing sheets are also attached in response to the examiner's objections. The applicant rejects the proposition that the application could become abandoned for failure to include lead lines in respect of item 124.

### Arguments

The examiner objects, in paragraphs 5 and 6 to claim 17. Presumably, the examiner's complaint relates to lack of a specific disclosure of a solenoid in Figures 2 and 3. Accordingly, claim 17 has been amended to eliminate reference to the solenoid feature. As amended, claim 17 is clearly supported by Figure 3 and the accompanying portions of the specification.

In paragraph 7, the examiner objects to claims 15 and 16 and these have been cancelled.

In examiner's paragraph 8, he rejects claim 2 under section 112 as being indefinite. The examiner queries how the "at least one charge" relates to the previously claim "flash material". In order to simplify the issues, claim 1 has been amended to refer to only charge. If the truth be known, neither the applicant or his representative understands the examiner's complaint given that the specification is perfectly clear as to the notion that the flash material may be provided in more than one charge. The examiner is referred to lines 9 and 10 of page 3, to which: "a diversion grenade 100 comprises a transparent body 102 that contains one or more independent charges of a flash material 104".

In examiner's paragraph 8, claim 8 is objected to because the examiner could not find a structural item corresponding to an external switch for disabling the flash. Accordingly, claim 8 has been amended to refer only to the emitters.

In examiner's paragraph 8, claim 11 is objected to for failure to include the word "the". Claim 16 is objected to because of a punctuation mark. Both of these amendments are now made in the attached claim set.

In examiner's paragraph 10, claims 1-2, 4-5, 8, 10 and 12 are rejected as being obvious in view of the combination of Kissel (623) and Campagnuolo (372). The applicant respectfully disagrees that the claims, particularly as amended, are

unpatentable under section 103 or that the examiner has met his burden in examination in respect of this issue.

As presently amended, the claim explicitly recites that the charge comprises a “non-explosive flash material”. Further, the claim now recites that the body is thick enough to withstand the energy emitted by the flash material without fragmentation or allowing hot material or flammable gas to escape the body. Both of these features of claim 1 are considered quite important to the operational characteristics of the invention. As recited on page 1 of the specification, prior art devices constitute a combustion hazard and are not suitable in fuel rich environments, engine rooms, airplanes, enclosed spaces, chemical laboratories, mines and other environments where a combustion initiator cannot be tolerated. Because the invention of claim 1 comprises a non-explosive flash material and because the body is thick enough, the diversion grenade of claim 1 does not comprise an explosive device or a combustion hazard and is not a combustion initiator.

In contrast, the 623 reference clearly discloses an explosive device that requires the detonation of an explosive compound referred to as HMX. As referred to at the bottom of column 2 of the 623, an electrical spark emitted from the end of the bridge head 20 initiates a reaction of the explosive HMX and aluminum dust. This reaction creates an explosive shock wave that propagates down the length of the shock tube. The applicant’s claimed invention specifically recites that hot material and flammable gas are not allowed to escape from the body, the subject of managing the explosion that occurs within the device of the 623 is not specific enough to allow either the examiner or the applicant to conclude that the discharge from the detonation of the HMX is fully contained within the body of the 623 device.

Further, the 623 is grenade simulator and as such has no use for an LED flashing tracer. As outlined in the last paragraph of page 3 of the applicant’s specification, the recited and claimed tracer light serves the purpose of attracting the attention

of personnel for whom the diversion grenade is intended. A tracer discharges before ignition. It attracts attention to better ensure that enemies are looking at the grenade when the flash material is activated. The tracer light may also provide an indication of the path of the grenade for the benefit of the grenade's user. As would be expected of a tracer light, it may be activated immediately upon release of the lever or it may be delayed briefly so as to not give away the position of the user (thrower). The 623 reference makes no reference of tracer lights and would be incompatible with one as it is a simulator of a conventional grenade.

These same basic observations are true of the 372 reference. No reference whatsoever is made in the 372 of a tracer or a LED tracer. The 372 device is specifically a training grenade and would therefore not require a tracer or to have the safety characteristics of the present invention which is explicitly non-explosive. Although the 372 reference does contain disclosure relating to the use of a light emitting explosion simulating diode, it is disclosed (in column 2) as pertaining to the main light emitting function of the training grenade and not as a tracer light that is used in addition to the primary flash material.

Accordingly, no combination of the Kissel (623) or Campagnuolo (372) reference can be constructed to disclose all of the integers now recited in claim 1. Further, the examiner has shown no teaching, motive or suggestion apparent from either the 372 or the 623 that would suggest combining the two references which are both training grenades for the purpose of constructing a diversion grenade of the type claimed by the applicant. The examiner is urged not to apply hindsight in the reconstruction of the invention, having had the benefit of the applicant's disclosure.

In paragraph 12 of the examiner's report, claims 1-9, 11 and 13-14 are deemed obvious in view of Ripingill Jr (404) and Campagnuolo (372). The applicant respectfully disagrees that these claims are obvious or that the examiner has met the burden of examination. There is no evidence (other than hindsight) for a

motive, teaching or suggestion that these references can or should be combined in any way. In particular, the examiner contends that the 404 contains a tracer light which is depicted as items 58, 104 or 106. In column 4, the 404 reference recites that the micro controller 28 energises the traducers, which are the LED's 58 in Figure 7 when the explosive charge 46 is detonated. First, this tells us that the 404 is an explosive device and second that the LED's are energized only after the explosive charge is detonated. Thus, the LED's 58 cannot be considered tracer LED's nor can the reference be said to teach a non-explosive flash material as explicitly recited in the applicant's claim 1. Similarly, the last paragraph of column 5 of the 404 reference teaches that the LED's 104, 106, 108 and 110 are used for the purpose of simulating the explosion pattern of an actual lethal hand grenade. Thus, these LED's are activated after the actual or simulated explosion and not prior to it as are the case of tracer LED's. There is no teaching, motive or suggestion in Ripingill to suggest the utility of a tracer LED and the presence of explosive material within the body of the device makes this kind of training aid clearly distinguishable from the kind of diversion grenade now claimed by the applicant. The applicant urges the examiner to recognize that there is no express teaching, motive or remote suggestion for combining the 404 and 372 references in the manner suggested by the examiner.

In the examiner's paragraph 13, it is contended that claims 1-2, 4 and 13 lack novelty when compared to the Owens (087) reference. First, the lights identified as tracer lights by the examiner (16, 17) are not tracer lights within the ordinary meaning of the term. Further there is no suggestion in the 078 that the body is constructed in such a way that hot materials and flammable gases are prevented from escaping the body. It is accepted law that to anticipate, a reference must show each and every claimed limitation or element. In this case, the 078 fails to specifically teach non-explosive flash material, a body being thick enough to withstand the energy of the flash material that fragmentation or allowing hot material of flammable gas to escape, or and LED flashing tracer. As such, the 078 reference is not capable of anticipating claim 1 or any of its dependencies.

Each of the objections made by the examiner are addressed by this response and the applicant considers the claims to be in condition for allowance. The examiner is urged to reconsider the claims in light of the amendments made and the arguments offered. The examiner is urged to recognize the fundamental differences between diversion grenades and training grenades (or exploratory projectiles in the case of the 078). Each of these kinds of devices has fundamentally different requirements and the applicant contends that the features that distinguish the applicant's diversion grenade from the cited art are now recited in the claims.

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Regards,

  
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